

IN THE CLAIMS

Claim 1 has been amended as follows:

1. (Currently amended) A method for protecting a device against operation with an unallowed tangible consumable product, comprising the steps of:
 - (a) storing a plurality of reference code words at a data center;
 - (b) generating a code word having a predetermined relationship to at least one of said reference code words;
 - (c) electronically allocating said generated code word to an electronic representation of a tangible consumable product and storing said electronic allocation at said data center;
 - (d) aggregating each physical authentic tangible replacement consumable product, corresponding to said electronically represented tangible consumable product, with said generated code word, by generating an identification number said generated code word ~~an~~ and aggregating the identification number with each physical authentic tangible replacement consumable product during manufacture of each authentic tangible replacement consumable product at a manufacturer;
 - (e) at a device located remote from said data center, detecting an operation to replace tangible consumable product in said device with a proposed tangible replacement consumable product, said proposed tangible replacement consumable product having an identification number aggregated therewith embodying a code word;
 - (f) upon detection of said operation, automatically establishing a communication link between said device and said data center and

communicating said identification number aggregated with said proposed, tangible replacement consumable product to said data center from said device via said link;

(g) at said data center, checking authenticity of said proposed, tangible replacement consumable product by determining whether said code word embodied in the identification number aggregated with said proposed, tangible replacement consumable, and transmitted via said link, has said predetermined relationship with said at least one reference code word stored at said data center and if so, authorizing said proposed, tangible replacement product; and

(h) via said link, informing said device from said data center whether said proposed, tangible replacement consumable is authorized.

2. (Previously Amended) A method as claimed in claim 1 wherein step (d) comprises designating said identification number embodying said generated code word on a carrier and permanently affixing said carrier to each authentic, tangible replacement consumable.

3. (Previously Amended) A method as claimed in claim 1 wherein step (d) comprises applying said identification number embodying said generated code word on each authentic, tangible replacement consumable as a marking.

4. (Previously Amended) A method as claimed in claim 1 wherein step (d) comprises selecting a technique for aggregating each authentic, tangible replacement consumable product with said identification number embodying said generated code word dependent on a physical nature of said authentic, tangible replacement consumable.

Claim 5 (Cancelled).

6. (Previously Amended) A method as claimed in claim 1 wherein said device is a franking machine which is loaded with a credit that is decremented upon each franking performed at said franking machine, and wherein said method comprises the additional step of maintaining a record of a credit status of said device at said device, and wherein step (f) includes transmitting a current credit status of said device to said data center via said data link together with said identification number embodying said code word aggregated with said proposed, tangible replacement consumable product, and wherein step (g) comprises determining, at said data center an amount of credit used by said device since an immediately preceding authorization of said tangible replacement consumable product, and from said determination of said credit used by said device, determining at said data center a number of flankings performed by said device since said immediately preceding authorization, and classifying said device as suspect dependent on a relationship between said number of flankings.

7. (Previously Amended) In a device which consumes a tangible consumable product during operation thereof, the improvement of an arrangement for protecting said device against operation with an unallowed tangible consumable product, said arrangement comprising:

a detector which generates a detector signal upon detecting an operation for replacing a currently used tangible consumable product with a proposed, tangible replacement consumable product having an identification number aggregated therewith;

a microprocessor supplied with said detector signal which, upon receipt of said detector signal, automatically establishes a communication link with a remote data center;

an input unit that enters said identification number aggregated with said proposed, tangible replacement consumable product into said microprocessor, and said microprocessor thereupon communicating said identification number to said remote data center; and

said microprocessor, via said communication link, receiving a message from said data center identifying whether said proposed, tangible replacement consumable product is authorized, and said microprocessor modifying operation of said device, with regard to permitting usage of said proposed, tangible consumable product in said device, dependent on said message.

8. (Previously Amended) An arrangement as claimed in claim 7 wherein said tangible consumable product is a liquid.

9. (Previously Amended) An arrangement as claimed in claim 7 wherein said tangible consumable product is ink.

10. (Previously Amended) An arrangement as claimed in claim 7 wherein said tangible consumable product has a non-solid aggregate state.

11. (Previously Amended) An arrangement as claimed in claim 7 wherein said tangible consumable product is a solid.

12. (Previously Amended) An arrangement as claimed in claim 7 wherein said tangible consumable product is an inking ribbon.

13. (Previously Amended) An arrangement as claimed in claim 7 wherein said tangible consumable product is an ink jet print head with an integrated ink tank.

14. (Previously Amended) An arrangement as claimed in claim 7 wherein said tangible consumable product is a filled ink tank cassette.

15. (Previously Amended) An arrangement as claimed in claim 7 wherein said detector comprises a sensor which detects a presence of said proposed, tangible replacement consumable product by physical interaction with said proposed, tangible replacement consumable product.

16. (Previously Amended) An arrangement as claimed in claim 7 wherein said device is a printing device having a printer which produces a plurality of imprints, and wherein said tangible consumable product is a filled ink tank cassette connected to said printer, each of said imprints consuming ink from said ink tank cassette, and wherein said microprocessor counts said plurality of imprints to obtain an imprint count as an indication of an amount of ink remaining in said ink tank cassette.

17. (Original) An arrangement as claimed in claim 16 wherein said microprocessor determines a need for replacement of said ink tank cassette when said imprint count reaches a predetermined number.

18. (Previously Amended) An arrangement as claimed in claim 7 wherein said device is a printing device having a printer for printing a plurality of imprints and wherein said tangible consumable product is a filled ink tank cassette connected to said printer, each of said plurality of imprints consuming ink from said ink tank cassette, and wherein said detector comprises electrodes which electrically

interact with said ink in said ink tank cassette to identify an amount of ink remaining in said ink tank cassette.

19. (Original) An arrangement as claimed in claim 18 wherein said ink tank cassette has an identifier thereon identifying a type of ink contained in said ink tank cassette, said identifier being enterable into said microprocessor.

20. (Previously Amended) An arrangement as claimed in claim 7 wherein said microprocessor modifies operation of said device by disabling further operation of said device if said message indicates said proposed, tangible replacement consumable product is not authentic.

21. (Original) An arrangement as claimed in claim 7 wherein said device further comprises a display in communication with said microprocessor, and wherein said microprocessor causes said message from said data center to be displayed on said display.

22. (Previously Amended) A method as claimed in claim 1 wherein step (d) comprises storing said identification number embodying said generated code word in an electronically readable chip and permanently associating said chip with said authentic, tangible replacement consumable product, and wherein step (f) includes inserting said proposed, tangible replacement consumable product in said device and reading said code word embodied in said identification number aggregated therewith from said electronically readable chip.

23. (Previously Added) A system for protecting a device in the system against operation with an unallowed tangible consumable product comprising:

a device which consumes a tangible consumable product during operation thereof;

a data center located remote from said device and having a microprocessor and a memory accessible by said microprocessor, said memory containing a code word, having a predetermined relationship to a reference code word also stored at said data center, said code word being electronically allocated in said memory to an electronic representation of said tangible consumable product;

a detector at said device for detecting an operation at said device to replace said tangible consumable product in said device with a proposed, tangible replacement consumable product, said proposed, tangible replacement consumable product having an identification number aggregated therewith;

a device microprocessor at said device connected to said detector for, upon detection of said operation by said detector, automatically establishing a communication link with said microprocessor at said data center and communicating said identification number aggregated with said proposed, tangible replacement consumable product to said data center from said device via said link;

said microprocessor at said data center checking authenticity of said proposed, tangible replacement consumable product by determining whether said identification number embodies a code word having the same predetermined relationship with said reference code word as the code word stored in the memory of the data center allocated to the electronic representation of the tangible consumable product and, if so, authorizing said proposed, tangible replacement product; and

said microprocessor at said data center, via said link, informing said device microprocessor whether said proposed, tangible replacement consumable product is authorized.

24. (Previously Added) A system as claimed in claim 23 wherein said device is a franking machine which is loaded with a credit that is decremented upon each franking performed at said franking machine, and wherein said device microprocessor maintains a record of a credit status of said franking machine and transmits said credit status from said franking machine to said data center via said link together with said identification number, and wherein said microprocessor at said data center determines, from the transmitted credit status, an amount of credit used by said franking machine since an immediately preceding authorization of said tangible replacement consumable product, and from said determination of said credit used by said franking machine, said microprocessor at said data center determines a number of frankings performed by said franking machine since said immediately preceding authorization, and classifies said franking machine as suspect dependent on said number of frankings.